## Message

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**Sent**: 1/8/2015 1:55:44 PM

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Subject: ST012 update

## BCT members:

Please find below a summary update of work completed at ST012 from 12/29/14 thru 1/6/15:

Clean Harbors was onsite 12/29/14 to vacuum out the T-102 and oil water separators. A liquid sample was collected from the T-102 discharge prior to tank cleaning and sent for 8260C analysis.

Standard system inspections and maintenance activities were performed daily to assess subsurface temperature. A review of temperature data indicated that temperatures remain relatively constant with some cooling. Overall the steam zones are near stagnant. No major expansion or contraction of the steam zones are visible.

Site operations began the carbon change out process on Wednesday (12/31/14) and concluded the change out on Saturday (1/3/15). The extraction system was restarted at approximately 1:00 pm on 1/5/15 at a target net extraction rate of 300 gpm - three eductor skids operating/three eductor skids not operating on a daily rotation (steam injection rates will be reduced to 3/5 of the maximum injection).

The site operations team monitored the carbon effluent groundwater headspace with PID and FID periodically (5 samples on 1/5/15 and 2 samples on 1/6/15). The PID and FID effluent results (<100 PID; <50 FID) were well below the previous results seen in the first four hours of operations on 12/24/14. The site operations team will continue increasing the extraction/injection rates based on restart extraction/injection data and laboratory analytical results. Laboratory analytical results for 1/5/15 will be available on 1/8/15 to verify permit compliance.

Recent conversations with David Gonzalez (COM) on 1/5/15 indicated COM had their laboratory analysis back from sampling on 12/23/14. David indicated the following:

- There were a number of individual constituents in the sample but nothing that definitively indicated a discharge violation. David wants to check with their attorney whether it is OK to share the full results.
- David did share TPH results of 5.5 mg/L at the discharge manhole and 950 mg/L at the lift station.
- There is still a faint odor of petroleum present in the system.
- COM is continuing to investigate other dischargers in the area.

Preliminary verbal results received from the laboratory regarding compliance samples collected by Amec Foster Wheeler indicated no exceedance of the permit discharge requirements. This sample was collected approximately 24 hours before notification by COM of a potential issue at the lift station.

Based on the information to date, it does not appear that groundwater discharge from ST012 to the COM wastewater collection system contained constituents that exceeded the discharge permit requirements.

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